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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

LEE, BENNY T

ART UNIT

PAPER NUMBER

2817

DATE MAILED: 08/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES DEPARTMENT OF COMMERCE  
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SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.

EXAMINER	
ART UNIT	PAPER NUMBER
	8

DATE MAILED:

This is a communication from the examiner in charge of your application.

COMMISSIONER OF PATENTS AND TRADEMARKS

☐ This application has been examined ☒ Responsive to communication filed on 8 May 2003 ☒ This action is made final.

A shortened statutory period for response to this action is set to expire Three (3) month(s), 87 days from the date of this letter.  
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- |                                                                                         |                                                                                 |
|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input type="checkbox"/> Notice re Patent Drawing, PTO-948.                  |
| 3. <input type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449                  | 4. <input type="checkbox"/> Notice of Informal Patent Application, Form PTO-152 |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474      | 6. <input type="checkbox"/> _____                                               |

Part II SUMMARY OF ACTION

1. ☒ Claims 1-4 are pending in the application.  
Of the above, claims \_\_\_\_\_ are withdrawn from consideration.
2. ☒ Claims 5 have been cancelled.
3. ☐ Claims \_\_\_\_\_ are allowed.
4. ☒ Claims 1-4 are rejected.
5. ☐ Claims \_\_\_\_\_ are objected to.
6. ☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.
7. ☐ This application has been filed with informal drawings which are acceptable for examination purposes until such time as allowable subject matter is indicated.
8. ☐ Allowable subject matter having been indicated, formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on \_\_\_\_\_. These drawings are: ☐ acceptable; ☐ not acceptable (see explanation).
10. ☐ The ☐ proposed drawing correction and/or the ☐ proposed additional or substitute sheet(s) of drawings, filed on \_\_\_\_\_, has (have) been ☐ approved by the examiner, ☐ disapproved by the examiner (see explanation).
11. ☒ The proposed drawing correction, filed 8 May 2003, has been ☒ approved, ☐ disapproved (see explanation). However, the Patent and Trademark Office no longer makes drawing changes. It is now applicant's responsibility to ensure that the drawings are corrected. Corrections MUST be effected in accordance with the instructions set forth on the attached letter "INFORMATION ON HOW TO EFFECT DRAWING CHANGES", PTO-1474.
12. ☐ Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received  
☐ been filed in parent application, serial no. \_\_\_\_\_; filed on \_\_\_\_\_.
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

SN 38227

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The disclosure is objected to because of the following informalities: In the replacement paragraph to page 8, line 20, it is again requested that the reference labels described therein reference particular one(s) of Figs. 7, 8, 9 in which they actually appear. For example, probe "11" appears in --Figs. 7-- while probe "12" appears in --Figs. 7 and 9--, etc. Clarification is needed.

Appropriate correction is required.

Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, fourth paragraph, note that the recitation "disposed whose plane ..." is vague in meaning and needs to be clarified. In the last paragraph, note that the recitation "produce signals that can be simply amplified and synthesize by the two probes" does not appear to properly characterize the invention. As known to those of ordinary skill in the art, "probes" (being passive elements) can not effect active functions such as "amplifying" and "synthesizing". Clarification is needed.

The following claims have been found objectionable for reasons set forth below:

In claim 1, last paragraph should "face" be rewritten as --are oriented-- for a proper characterization?

In claim 3, should --each-- precede "have an L shape" for a proper characterization?

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In claim 4, line 7, note "corresponding" (i.e. prior to "bending") should be rewritten as -- respective-- for consistency of description.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by the EP reference to Yoshida et al.

The EP reference pertains to a converter for satellite communication reception (e.g. see col. 1, Field of the Invention). In particular, with respect to Fig. 10, the converter (100) comprises a shielded case (102) having a polarization separator (101) therein. The polarization separator further includes waveguides (103, 104) for propagating horizontal and vertical polarization signals, respectively. The case (102) further includes a circuit substrate or circuit board (105). The circuit board substrate supports probes (106, 107) comprised of flat electroconductive patterns or pins. These flat pin probes (106, 107) are positioned relative to (i.e. protrude over) waveguides (103, 104), respectively to couple horizontal and vertical polarization signals therefrom. As is evident from fig. 11, probes (106, 107) are oriented orthogonal to each other. However, the coupled polarized signals from probes (106, 107) are eventually routed along conductors in a common direction parallel to the substrate. Furthermore,

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from fig. 11, FETS (52, 54) “simply” amplify the signals from probes (107, 106), respectively (also see col. 16, ls 22-39). As is evident from Figs. 12A, 12B, a shield cover (108) closes off shield case (102) with waveguides (103, 104) and substrate (105) located therein. Note that hollow (60) function as reflective faces or end caps aligned with waveguides (103, 104) and respective, probes (106, 107). Although, not explicitly shown in Fig. 10 (but shown in the alternative embodiment of Fig. 7B), the waveguides (103, 104) inherently must bend or have bending portions associated therewith to change the direction of the polarized waves entering converter (101) to the polarized waves exiting waveguides (103, 104). Like wise, although not explicitly shown in Fig. 10 (but depicted in the alternate embodiment of Fig. 8), a horn (e.g. 83 in Fig. 8) inherently connects with the convertor to efficiently guide the polarized waves into the converter much in the same manner as in the alternative embodiment of Fig. 8.

Applicant's arguments with respect to claims 1, 2, 4, 5 have been considered but are moot in view of the new ground(s) of rejection.

Claim 3 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Goscianski et al (fig. 1b) discloses a dual polarization waveguide coupled to circuit boards, Dousset et al (fig. 2) pertains to orthogonally oriented waveguides coupled to a circuit board.

Any inquiry concerning this communication should be directed to Benny Lee at telephone number 308-4902.



BENNY T. LEE  
PRIMARY EXAMINER  
ART UNIT 2817

Lee/ek

07/29/03